

**AMENDMENTS TO THE SPECIFICATION**

Please amend the abstract as follows:

~~Disclosed are systems~~ Systems and methods for providing a thermally optimized cold cathode heater in which a heater wire is disposed in a plurality of turns are shown. Turns of the plurality of turns are closely spaced to concentrate heat in an area of a host cathode device corresponding to a cold cathode position and turns of the plurality of turns are disposed to minimize introduction of heat in an area of said host cathode device not corresponding to said cold cathode position.